UNITED STATES PATENT AND TRADEMARK OFFICE

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09/786,818	03/09/2001	Youichi Tanibayashi	9683/82	6699

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ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-8,11,12,15-27,29-32,35-44 and 47-56* is/are rejected.

7)☒ Claim(s) *4, 9-10, 13-14, 28, 33-34 and 45-46* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5, 8* .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Drawings

The drawings were received on 5-3-01. This (one) drawing is a correction an

original and is approved by the examiner.

Specification

The abstract of the disclosure is objected to because of minor errors:

1. Part numbers are not required

2. The phrase "80A, 80B, ⋯ " should be deleted in two places.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 29-56 rejected under 35 U.S.C. 112, first paragraph, as based on a

disclosure which is not enabling. The claims recite third and fourth "location information

notifying units" without describing/defining a first, second or third unit which would be

critical or essential to the practice of the invention, but not included in the claim(s) is not

enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA

1976). *The examiner interprets these as different embodiments of the invention and not*

as 3 or 4 separate units that are required for the operation of the invention. Hence

claim 31, for example, while describing a third unit is interpreted as having only one unit

and not three distinct units (same for claim 43 regarding a fourth unit).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-8, 11, 12, 15-27, 29-32, 35-44 and 47-56 rejected under 35

U.S.C. 103(a) as being unpatentable over Hashimoto, and further in view of Tell et al.

US 5,774,802 and Cox et al. US 6,580,904 (hereafter Hashimoto, Tell, Cox).

As per claims 1, 5, 7, 11, 25, 29, 31 and 43, Hashimoto teaches a location transmittal method for transmitting to a predetermined computer of location information of a mobile communication terminal obtained on a mobile communication network which contains mobile communication terminals capable of wireless communication (title, abstract), said computer to which said location information is transmitted to a plurality of computers including a first computer capable of handling said location information in a first representational format (figure 1, #32 and claim 3, page 46), said location information notifying method comprising:

a location information generating step of detecting the position of said mobile communication terminal and generating the location information thereof (figure 1, #10 is central system and #26/#27 are position providing units);

a location information converting step wherein, in the event of transmitting said location information to said first computer, said location information is converted from an original representational format into said first representational format, and in the event of making notification of location information to said second computer, said location information is converted from said original representational format into said second representational format (abstract and figure 2 teach multiple means for determining location and page 7, L21 to page 12, L6) and

capable of handling said location information in a second representational format (Abstract teaches position determination via several methods including GPS, PHS terminal locations, radio markers and district maps AND transmitting data to Central System via Radio or PHS formats [see link between remote #11 and #23 or #24 which infers two different communications formats]). The examiner interprets the invention's ability of determining location via several methods as reading on different formats since GPS would yield LAT/LONGs while PHS terminal locations, radio markers or a map would yield a different format – Hashimoto teaches LAT/LONG, Compass Heading, Position Heading and/or use of a physical map, see figures 3-4 for "Map", and figure 9a,

#2 and figure 9b, #2/#3 for LAT/LONG and Compass/Position) and a second computer (see claim 12, page 48 teaches a "third party" which reads on a second computer) **but is silent on**

a location information notifying step of notifying said computers of said location information with the representational format thereof converted.

Tell teaches location determination whereby the <u>location</u> cache also supports a subscription service, allowing applications to subscribe for <u>automatic notification</u> of detected <u>location</u> changes for any particular subscriber. The subscription service is useful for real time applications such as Fleet Management (C4, L21-34). **Cox** teaches a different embodiment whereby a directory assistance agent can locate a user (abstract) and send them directions in multiple formats based on said location (C3, L66 to C4, L11).

With further regard to claim 5, Hasimoto's invention teaches multiple ways to determine an exact position of the user to certain degrees (radio markers being the most precise, GPS LAT/LONG being less precise) which reads on providing location data with a needed precision (see page 8, L21 to page 9, L3).

With further regard to claim 7 and 32, Hasimoto teaches the wireless device determining location and transmitting the data to the Central System (abstract, figure 1 and page 10, L15-20). Receivers are inherent in RF systems.

With further regard to claim 11, Hasimoto teaches a home terminal (figure 1, #32) that can receive position data which reads on use of a "request signal" (page 11, L11-16 as does an "information offer" described on page 11, L17 to page 12, L6).

With further regard to claim 29, 31, 43, Hashimoto's teaching of a Central System (figure 1, #10) is interpreted by the examiner as a second location information unit since it provides data to the home terminal #32. The mobile unit is the first location unit since it can determine its own position.

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that notification is supported, to provide automatic location updates to a monitoring site.

As per claims 2 and 26, Hashimoto teaches Claim 1/25, wherein said mobile communication network comprises a plurality of mobile communication networks including a first mobile communication network and a second mobile communication network with differing representational formats for location information generated thereby; wherein said location information generating step generates, on one hand, the location information of a mobile communication terminal belonging to said first mobile communication network in a third representational format, and, on the other hand generates the location information of a mobile communication terminal belonging to said second mobile communication network in a fourth representational format; AND wherein, in the event of notifying said location information of said mobile communication terminal belonging to said first mobile communication network to said computers, said location information is converted in said location information converting step from said third representational format into a representational format which said computers are capable of handling, and on the other hand, in the event of notifying said location

information of said mobile communication terminal belonging to said second mobile communication network to said computers, said location information is converted in said location information converting step converts from said fourth representational format into a representational format which said computers are capable of handling (abstract and figure 1 show that position can be determined/represented in multiple ways and there are at least two different communication links between the mobile #11 and Central System #10 which reads on third, fourth, etc. methods, formats and computers, also see page 7, L21 to page 12, L6).

As per claims 3, 6, 27 and 30, Hashimoto teaches claim 1/5/25/29, wherein said first and said second representational formats are one of:
a format representing latitude and longitude information (figure 9a, #2 and #3);
a format representing an administrative district (abstract teaches a map is used for a specific district).

As per claim 8, Hasimoto teaches a location information notifying method according to Claim 7, wherein said location information notifying step includes:
- method of said location information from said computer, and notifying said generated location information after said notified adding method (page 10, L15-20 teaches providing position data (eg. notifying) to the Central System.
But is silent on a step of notifying to said mobile communication terminal the adding.
Tell teaches location determination whereby the <u>location</u> cache also supports a subscription service, allowing applications to subscribe for <u>automatic notification</u> of detected <u>location</u> changes for any particular subscriber. The subscription service is useful for real time applications such as Fleet Management (C4, L21-34).
It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that notification is supported, to provide automatic location updates to a monitoring site.

As per claims 12 and 44, Hashimoto teaches claim 11/43, further comprising:
an identification information adding step of adding identification information of said mobile communication terminal to said data transmitted from said mobile communication terminal to said computer (page 26, L13-22 teaches use of an ID), and transmitting to said computer;
wherein said location information generating step determines the mobile communication terminal for which said location information to be generated and generates said location information, based on said identification information contained in said request signal from said computer (page 26 L13 to page 27, L6 teaches use of ID to locate another and would be used for the present mobile as well).

As per claims 21, 41 and 53, Hashimoto teaches either Claim 7or11/31/43, further comprising:

an input screen and/or buttons (figures 10a, 10c and 10d have input screens/buttons) transmitting step of transmitting input screen data for inputting to said mobile communication terminal specified location information which the user of said mobile communication terminal can specify (page 43, L4-11 teaches using screen/buttons for inputting/controlling navigation services); and

a specified location information receiving step of receiving from said mobile communication terminal said specified location information input by said user (figure 4 describes process of requesting/acquiring position);

wherein said location information notifying step notifies said computer of said specified location information received in said specified location information receiving step, along with said location information generated in said location information generating step (figure 4 shows acquiring position based on request).

As per claims 22, 42 and 54, Hashimoto teaches either Claim 7or11/31/43, wherein said mobile communication terminal comprises position measuring means for measuring its own position (abstract, figure 1);

wherein said location information method comprises a measured location information receiving step of receiving from said mobile said mobile communication terminal and generating the location information thereof (figures 2 and 4, figure 1, #10 is central system and #26/#27 are position providing units);

a location information representational format converting unit which (figure 1, #32 and claim 3, page 46), in the event of transmitting said location information to said first computer, converts said location information from said representational format which is generated into said first representational format, and in the event of notifying said location information to said second computer, said location information is converted from said generated representational format into said second representational format (Abstract teaches position determination via several methods including GPS, PHS terminal locations, radio markers and district maps AND transmitting data to Central System via Radio or PHS formats [see link between remote #11 and #23 or #24 which infers two different communications formats]). The examiner interprets the invention's ability of determining location via several methods as reading on different formats since GPS would yield LAT/LONGs while PHS terminal locations, radio markers or a map would yield a different format – Hashimoto teaches LAT/LONG, Compass Heading, Position Heading and/or use of a physical map, see figures 3-4 for "Map", and figure 9a, #2 and figure 9b, #2/#3 for LAT/LONG and Compass/Position) and a second computer (see claim 12, page 48 teaches a "third party" which reads on a second computer); and

but is silent on a first location information notifying unit for notifying said computer of said location information with the representational format thereof converted.

Tell teaches location determination whereby the location cache also supports a subscription service, allowing applications to subscribe for automatic notification of detected location changes for any particular subscriber. The subscription service is useful for real time applications such as Fleet Management (C4, L21-33).

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that notification is supported, to provide automatic location updates to a monitoring site.

As per claims 23 and 55, Hashimoto teaches either claims 1, 5, 7 or 11/25, 29, 31 or 43 wherein said computer is an information providing server for providing said mobile unit with position related information relating to the position of said mobile terminal (figure 1, both the mobile, #11 or the Central System computer #10 can provide location data).

As per claims 24 and 56, Hashimoto teaches either claims 1, 5, 7, 11/25, 29, 31 or 43 wherein said mobile unit is a cell phone (figure 1 shows a cellular network and figures 10c-d show a cell phone, see page 42, L18-20).

Claims 15-20, 35-40 and 47-52 rejected under 35 U.S.C. 103(a) as being

unpatentable over Hashimoto/Tell/Cox and further in view of Kingdon et al. US

6,138,003 (hereafter Kingdon).

As per claims 15, 35 and 47, Hashimoto teaches claim 7or11/31/43 **but is silent on** further comprising:
a notification permission/non-permission determining step of determining whether or not said location information may be notified to said computer;
wherein said location information notifying step notifies said location information based on the determination result in said notification permission/non-permission determining step.
Kingdon teaches A telecommunications system and method is disclosed which performs authorization checks prior to allowing a location service to position a mobile terminal within a cellular network. The various checks involve ensuring that the requesting agency has authorization to request positioning of mobile terminals, determining whether positioning of mobile terminals is allowed within the cellular network that the mobile terminal is currently located in, verifying the authenticity of the identity of the mobile positioning center, ascertaining whether the mobile subscriber has allowed the requesting agency to position the mobile terminal, and confirming that all relevant criteria for positioning have been met by both the mobile subscriber and the requesting agency (abstract and C1, L13 to C2, L18).
It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that location is not transmitted unless authorized, to provide security measures to allow only authorized users to receive location data.

As per claims 16, 36 and 48, Hashimoto teaches claim 15/35/47, **but is silent on** wherein disclosure information regarding whether or not a computer is to have said location information disclosed thereto is stored in predetermined storing means beforehand;

and wherein said notification permission/non-permission determining step makes said determination by referring to said disclosure information stored by said storing means with regard to said computer which is to have said location information disclosed thereto.

Kingdon teaches performing authorization checks prior to allowing a <u>location</u> service to <u>position</u> a mobile terminal within a cellular network. The various checks involve ensuring that the requesting agency has authorization to request positioning of mobile terminals, determining whether positioning of mobile terminals is allowed within the cellular network that the mobile terminal is currently located in, verifying the authenticity of the identity of the mobile positioning center, ascertaining whether the mobile subscriber has allowed the requesting agency to <u>position</u> the mobile terminal, and confirming that all relevant criteria for positioning have been met by both the mobile subscriber and the requesting agency (abstract and figures 4-5 inherently require data to be stored/accessed to perform authorization).

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that permissions are stored beforehand, to provide means for the system to check a database/storage area for speedy authorization.

As per claims 17, 37 and 49, Hashimoto teaches Claim 16/36/48 **but is silent on** wherein said disclosure information is stored in said predetermined storing means beforehand for each mobile communication terminal;

and wherein said notification permission/non-permission determining step makes said determination by referring to said disclosure information stored by said storing means with regard to said computer which is to have said location information disclosed thereto.

Kingdon teaches authorization checks prior to allowing a <u>location</u> service to <u>position</u> a mobile terminal within a cellular network. The various checks involve ensuring that the requesting agency has authorization to request positioning of mobile terminals, determining whether positioning of mobile terminals is allowed within the cellular network that the mobile terminal is currently located in, verifying the authenticity of the identity of the mobile positioning center, ascertaining whether the mobile subscriber has allowed the requesting agency to <u>position</u> the mobile terminal, and confirming that all relevant criteria for positioning have been met by both the mobile subscriber and the requesting agency. The examiner interprets that various part of the above process will be stored before hand in order for the process to operate correctly/efficiently (eg. a user would require beforehand who can/cannot contact them).

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that notification is supported, to provide automatic location updates to a monitoring site.

As per claims 18, 38 and 50, Hashimoto teaches Claim 15/35/47, **but is silent on** wherein said notification permission/non-permission determining step comprises:

a step of making an inquiry to said mobile communication terminal regarding whether or not said location information may be notified to said computer; and

a step of making said determination based on response information from said mobile communication terminal to said inquiry.

Kingdon teaches authorization checks prior to allowing a <u>location</u> service to <u>position</u> a mobile terminal within a cellular network (abstract). The examiner interprets either a central controller (or mobile) as providing the authorization.

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that an inquiry to a mobile/computer occurs, to provide means for the mobile (or computer) to authorize whether its location should be divulged or not.

As per claims 19, 39 and 51, Hashimoto teaches Claim 15/35/47 **but is silent on** wherein terminal information, relating to whether or not said location information may be disclosed outside of said mobile communication network with regard to a mobile communication terminal, is stored in predetermined storage means beforehand;

and wherein said notification permission/non-permission determining step makes said determination by referring to terminal information stored in said storage means with regard to said mobile communication terminal relating to said location information of which notification is to be made.

Kingdon teaches authorization checks prior to allowing a <u>location</u> service to <u>position</u> a mobile terminal within a cellular network. The various checks involve ensuring that the requesting agency has authorization to request positioning of mobile terminals and <u>determining whether positioning of mobile terminals is allowed within the cellular network that the mobile terminal is currently located in</u> which reads on the claim (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that storing beforehand whether location should be disclosed outside of the mobile network, to provide quick lookup for authorizing whether a unit's location should be provided to anyone (inside/outside the network).

As per claims 20, 40 and 52, Hashimoto teaches Claim 15/35/47 **but is silent on** further comprising an error signal transmitting step of, in the event that it has been determined that transmission is not permissible in said notification permission/non-permission determination step, transmitting a transmission error signal to said mobile communication terminal or said computer to the effect that said location information may not be notified.

Kingdon teaches authorization checks prior to allowing a <u>location</u> service to <u>position</u> a mobile terminal within a cellular network (abstract) that transmits a "denial message" (eg. error signal) if location determination is not permitted (figure 3, #320).

It would have been obvious to one skilled in the art at the time of the invention to modify Hashimoto, such that an error message is transmitted, to provide feedback that authorization is/is not granted to a requestor.

Allowable Subject Matter

Claims 4, 9-10, 13-14, 28, 33-34 and 45-46 objected to as being dependent

upon a rejected base claim, but would be allowable if rewritten in independent form

including all of the limitations of the base claim and any intervening claims.

Claims 4 and 28 define formats for BTS's, wireless zones, partial wireless zones

and LAT/LONG which are not disclosed based on their dependent claim limitations.

Claims 9-10, 13-14, 33-34 and 45-46 disclose use of predetermined data

sequences within transmitted data that are substituted for with location data.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. :

1. Hillman et al. US 6,522,265.

2. Chen et al. US 6,496,701

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-

306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist on 703-306-0377.

SMD

WILLIAM TROST
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